CHAPTER I
Purpose and Need for Action

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) are proposing to reconstruct and widen Interstate 29/35 with new interchange configurations, structures and roadways in Clay and Jackson Counties. This includes the possible rehabilitation or removal of the existing bridge over the Missouri River. The I-29/35 Study Corridor extends approximately 4.7 miles (7.6 kilometers), from just north of Missouri Route 210/Armour Road in Clay County and continuing south on I-29/35/US 71, to the northwest corner of the central business district (CBD) freeway loop in downtown Kansas City, Missouri. The project includes the north side of the CBD Loop, designated as I-35/70 and US 24/40. A summary of operational and capacity options needed for this section of I-29/35 and I-35/70 and consideration of completing a major rehabilitation of the existing I-29/35 Paseo Bridge over the Missouri River and constructing a new companion bridge or replacing the existing bridge with an entirely new structure or structures is contained in the DEIS. The location of the I-29/35 Study Area within the Kansas City region is shown in Figure I-1, Project Location Map. The I-29/35 Study Corridor is shown in Figure I-2.

A. Project Background

The Purpose and Need was developed in support of the regional goals and objectives of Transportation Outlook 2030 and the Northland~Downtown MIS as well as Kansas City's FOCUS (Forging Our Comprehensive Urban Strategy) Plan. The Purpose and Need for the Paseo EIS was also developed in coordination with regional stakeholders, resource and regulatory agencies, as well the general public through an extensive public involvement process.

The proposed action was identified in a Major Investment Study (MIS) completed in 2002. The Northland~Downtown MIS described transportation problems and focused on connections between the portion of the Kansas City metropolitan area located north of the Missouri River (the Northland) and the downtown area located within the CBD Loop. The goals and objectives addressed in the Northland~Downtown MIS were; System Preservation, Personal Mobility and Quality of Life, Safety, Land Use and Development,

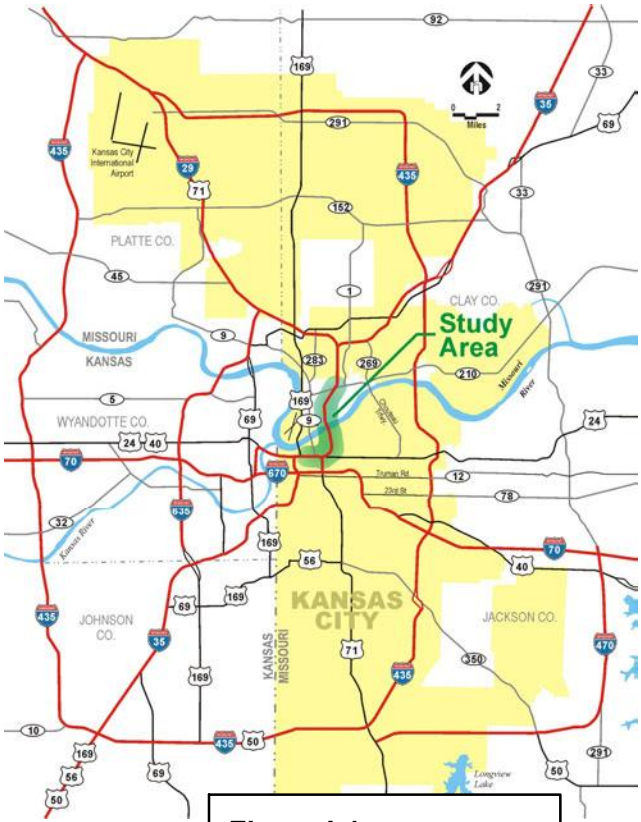

Figure I-1
Project Location Map

Regional Economy, System Management and Efficiency and Cost Effectiveness. The Northland~Downtown MIS studied all three river crossings to the CBD and the "Preferred Strategy" in that report concluded that the I-29/35 (Paseo Crossing) is where additional highway capacity needs to be added.

The highway element of the Northland~Downtown MIS included recommendations to widen and upgrade mainline lanes from US 169 to the CBD Loop to generally provide an eight-lane section with auxiliary lanes as needed, including a new four-lane companion bridge to the existing four-lane I-29/35 Paseo Bridge. The location of the proposed new bridge was shown immediately downstream (east) of the I-29/35 Paseo Bridge.

The MIS studied transportation modes which included transit, bicycles and pedestrians. The transit and non-motorized strategies were identified in the MIS on other existing or proposed bridges to the CBD, not on I-29/35. Expansion of these modes was pursued as part of a light rail transit plan. The voters rejected that plan so transit is being implemented as part of the Bus Rapid Transit program of the KCATA. Bicycle/pedestrian modes are being considered as part of future plans by Mid-America Regional Council (MARC), MoDOT and others.

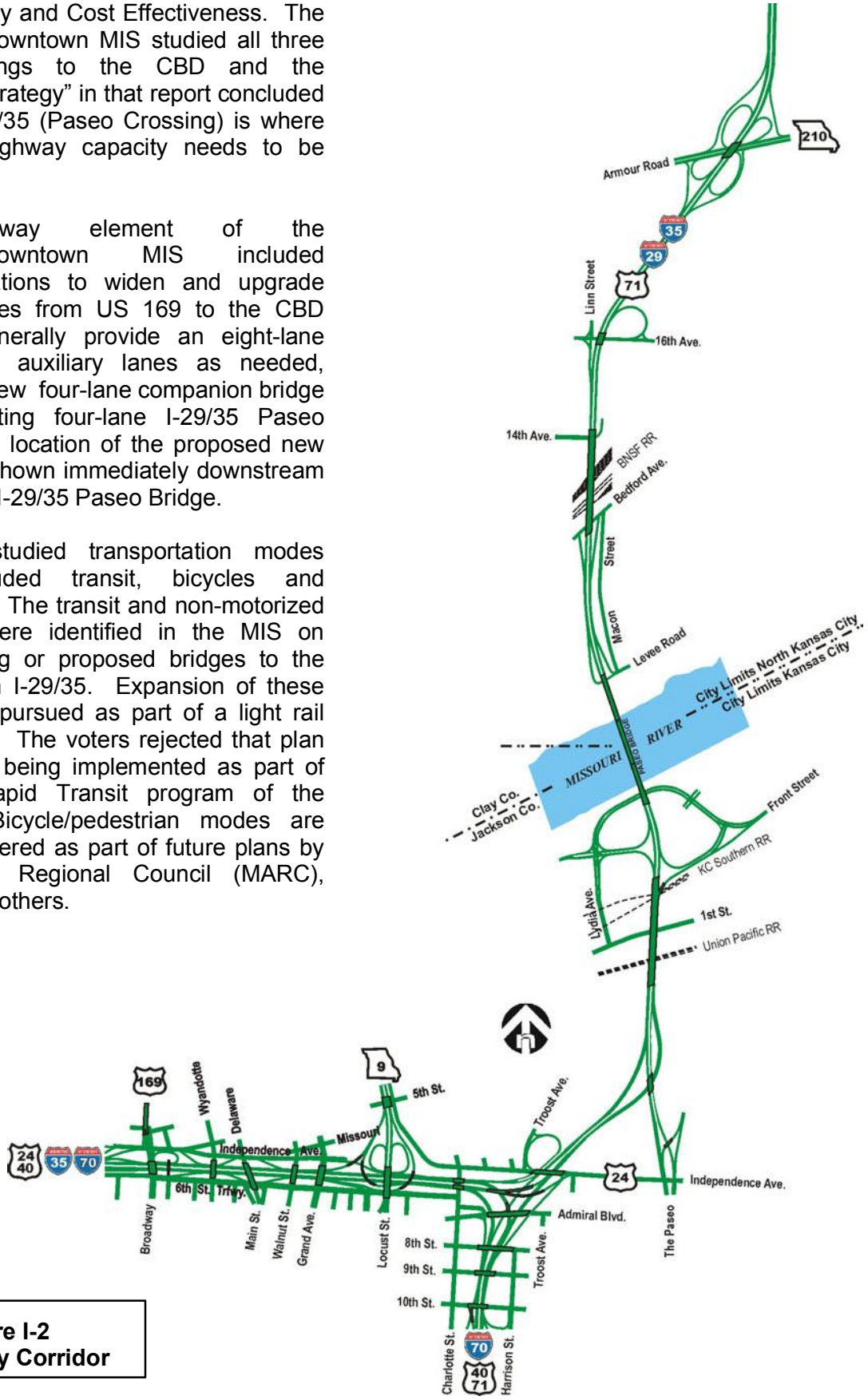

Figure I-2
Study Corridor

The EIS also includes a review of the findings and recommendations from: FOCUS, Kansas City's comprehensive land use plan; Smart Moves, a proposed regional transit initiative of MARC, KCATA, Johnson County Transit and Unified Government Transit which is not expected to be implemented until ten to twenty years have passed; and MetroGreen, a plan that identifies potential greenway corridors throughout the Kansas City metropolitan area. The FOCUS plan can be found on the City of Kansas City's website (www.kcmo.org/planning.nsf/focus). The Smart Moves and MetroGreen plans can be found on the MARC website (www.marc.org). The EIS also includes a review of information prepared as part of the I-70 Corridor MIS that was completed in 2004, which included initial conceptual recommendations for the north and east sides of the CBD Loop. The study corridor was defined to include I-70 from approximately the Missouri/Kansas state line eastward 28 miles to Oak Grove, Missouri. As such, it included a general examination of the CBD freeway loop. These and other plans and projects that have a relationship with the proposed action within the study corridor are summarized in Chapter I of the DEIS.

The need to address capacity on I-29/35 was reaffirmed in the Kansas City region's long-range transportation plan developed by the MARC. The current long-range transportation plan, *Transportation Outlook 2030*, identifies the I-29/35 Corridor as having heavy and moderate traffic congestion. The section of I-29/35 between M-210/Armour Road and the Kansas City CBD is identified as a regionally significant capacity project to be constructed between 2007 and 2010.

The section of what is now designated as I-29/35 between M-210/Armour Road and the Paseo Boulevard was originally constructed as a four-lane limited access expressway by Jackson and Clay Counties using bond financing. These freeway sections were constructed prior to the designation and construction of an interstate highway system. The project corridor includes the former Sixth Street Expressway (now the north side of the CBD Loop) and the Paseo Boulevard Extension (now part of I-29/35). These sections of I-29/35 and I-35/70 have close interchange spacing, improper lane balance, narrow traffic shoulders and less lane traffic capacity than do adjacent freeway sections to the north of M-210/Armour Road and sections outside the CBD freeway Loop that were built later. M-210 was chosen as the northern termini for these reasons and because of the dropping and adding of a lane in each direction just north of the interchange. This change in the typical section makes this an obvious choice for the termini for this project. This section of freeway is a traffic capacity "bottleneck" and is the focus of the proposed action. For these reasons the proposed action has logical termini. If constructed the project could stand on its own as a needed modification for the area. The proposed action will not foreclose transportation options to the north of the project termini or to the adjacent sections of the CBD freeway loop.

B. Summary of the Project Purpose and Need

The Purpose and Need of the project is to efficiently and safely move people, goods and services from north and south of the river along this 4.7 mile (7.6 kilometer) section of I-29/35. The EIS describes how the proposed action would address several needs. The rationale for setting these project needs is described in the subsequent sections of this chapter.

- ***Replace Deteriorating Infrastructure and Modify Interchanges*** – There is a need to rebuild the pavement surface and upgrade substandard roadway features along I-29/35, including shoulder widths, weaving and merge/diverge areas, bridge clearances, and interchanges to improve traffic operation and safety. There is also a need to replace or rehabilitate the Paseo Bridge.

- ***Improve Traffic Safety*** – The number of crashes along the corridor exceeds the statewide average for similar facilities. There is a need to reduce crashes occurring along this section of I-29/35, through roadway design and improved operations.

- ***Improve Interstate System Linkage Across the Missouri River*** – The project location is an important connecting link between the portions of Kansas City located north and south of the Missouri River. This crossing is also an important system linkage of the interstate highway system and is part of the I-35 North American Free Trade Agreement (NAFTA) trade corridor. There is a need to maintain and enhance movement and connectivity across the Missouri River.

- ***Provide Sufficient Vehicle Capacity and Improve Traffic Operation*** – Current and projected future vehicle demands exceed the existing capacity of I-29/35. Vehicular mobility is limited across the Missouri River and to-and-from the Northland and the CBD by the capacity of I-29/35 between M-210/Armour Road and the northeast corner of the CBD freeway loop. There is a need to increase capacity to meet future travel demands. There is also a need to address operational deficiencies which currently exist along the corridor, including poor traffic weaving sections, short acceleration/deceleration lanes, narrow roadway shoulders and substandard ramp configurations.

- ***Improve Access to the Kansas City CBD and Other Major Activity Centers*** – The Kansas City Central Business District is a large employment center and cultural center for the region. There is a need to provide safe and efficient access to-and-from a number of major land uses and activity centers including the North Kansas City industrial area located adjacent to the corridor, the North Kansas City Hospital, the Northeast industrial area, the Isle of Capri Casino, Berkley Park the Kansas City, Missouri CBD, the River Market, the Columbus Park neighborhood, and the Downtown Airport. There is also a need to improve north-south connectivity between the River Market and the CBD areas, currently separated by the north leg of the CBD freeway loop. Improving the physical connectivity between these areas impacted by previous highway construction would further support the economic sustainability of the CBD and surrounding areas.

- ***Facilitate the Movement of Trucks*** – M-210/Armour Road and Front Street are designated as National Highway System Intermodal Connectors and serve major intermodal transfer and loading facilities located in the Northeast Industrial Area. The movement of truck traffic is constrained by traffic congestion and by the operational deficiencies of the interchanges that are used by truck traffic to access I-29/35. There is a need to better facilitate truck movement along the I-29/35 Corridor and interchanges and support the movement of international trade along this designated NAFTA corridor.

Each of these specific needs is discussed in more detail in Chapter I of the Draft Environmental Impact Statement (DEIS), incorporated here by reference.

Public comment on the DEIS has led to re-examination and further clarification of the overall purpose of the project. The purpose of the proposed project is to improve the safety and efficiency in moving people, goods and services. It is not limited to adding vehicular capacity.

Further clarification is provided on how people and goods move through the study corridor. The movement of people and goods on this interstate facility is predominately accomplished by movement in vehicles including private vehicles, trucks and public transit vehicles. Private vehicles may be occupied by one or more persons. A survey completed by the Mid-America Regional Council indicted that the average number of persons per vehicle on I-29 just north of the M-210 was 1.15 in the a.m. peak hour and 1.12 in the p.m. peak hour (2001).

In addition to private vehicle travel, the Kansas City Area Transportation Authority (KCATA) operates one bus route with an average daily ridership of 65 (2005 data) on I-29/35. It operates six bus routes with an average daily ridership of 1,127 (2005 data) on parallel arterials including Burlington Boulevard/Heart of America Bridge and Broadway.

The movement of pedestrian and bicycle travel through the corridor is constrained by the lack of a safe and comfortable crossing of the Missouri River. The initial purpose of the project has been expanded beyond the movement of people in vehicles to include consideration of the movement of people on foot and the movement of bicycles.

Goods movement is primarily accomplished by truck travel. The daily percentage of trucks is ten percent of total vehicles (Table I-1), which is not expected to increase or decrease dramatically in the foreseeable future.

Table I-1*
Truck Traffic Percentages

Segment	Truck Percent
I-29/35, Paseo Bridge	10.0%
I-35/70, North Leg of Loop	10.6%
I-35/70, East Leg of Loop	10.6%

Source: MoDOT, District 4
* Table I-11 in DEIS page I-18.

1. REPLACE DETERIORATING INFRASTRUCTURE AND MODIFY INTERCHANGES

The note for Table I-2 regarding the shaded numbers was misleading. The note has been revised to clarify information presented that describes the condition and function of existing bridges in the I-29/35 Corridor.

Table I-2*
Description of Existing Bridges

Bridge No.	Location	Type	Length (ft)	Width (ft)	Vertical Clearance	Year Built	Sufficiency Rating
L07914	I-29/35 over M-210/Armour Rd.	Stringer/Multi Beam	246	90.7	**14'-11"**	1953	87.8
L07904	I-29/35 over 16th Avenue	Stringer/Multi Beam	161	82.8	14'-6"	1953	89.7
L07894	I-29/35 over CB&Q RR	Stringer/Multi Beam	1,397	82.8	**16'-0"**	1953	**71.7**
L07345	I-29/35 over Missouri River	Suspension	1,832	59.5	18'-2"	1954	**51.4**
L-936R	Admiral Blvd over I-70	Box Beam	509	72.3	**14'-11"**	1959	91.9
A4223	Delaware (Main) over I-35/70	Stringer/Multi Beam	373	70.0	16'-6"	1985	93.1
A4224	Grand Ave over I-35/70	Girder & Floorbeam	251	89.3	16'-6"	1990	91.9
L07823	Independence over I-35	Girder & Floorbeam	287	60.9	**15'-3"**	1953	**77.5**
L-937	8th Street over I-70	Box Beam	448	56.3	20'-2"	1959	**76.7**
L-938	9th Street over I-70	Box Beam	264	56.3	20'-2"	1958	**76.2**
L09391	10th Street over I-70	Box Beam	253	56.3	**15'-2"**	1959	**61.7**
L-494R1	Walnut Street over I-35/70	Stringer/Multi Beam	232	54.7	18'-5"	1954	**75.6**
L-492R1	Wyandotte Street over I-35/70	Stringer/Multi Beam	225	64.7	**16'-5"**	1954	**75.9**
A1131R	I-29/35 over Service Street	Box Beam	261	46.8	16'-7"	1970	80.4
L-934-3R	I-29/35 N over I-35 S	Box Beam	392	25.8	**14'-10"**	1958	**77.7**
L07884	I-29/35 over Dora/Guinotte	Stringer/Multi Beam	1,449	90.8	18'-2"	1953	86.4
A1130R	I-29/35 over I-70	Box Beam	394	34.3	**15'-2"**	1970	**79.8**
A1133R	I-29/35 over Service Street	Slab	541	32.3	21'-0"	1970	80.3
L04893	I-70 E over Bluff Street	Stringer/Multi Beam	78	42.7	14'-9"	1953	**59.1**
L-781R2	I-35/70 E over Charlotte Road	Stringer/Multi Beam	69	58.8	**13'-9"**	1953	90.5
L-935R	I-70 over I-35/70	Box Beam	150	34.8	**14'-9"**	1958	84.7
L-781R2	I-35/70 W over Charlotte Road	Stringer/Multi Beam	69	58.8	**13'-9"**	1953	90.8
L04893	I-70 W over Bluff Street	Stringer/Multi Beam	83	42.9	14'-9"	1953	**79.5**
A44571	M-9 N over I-35/70	Stringer/Multi Beam	416	41.5	28'-6"	1985	94.5
A41121	M-9 S over I-35/70	Stringer/Multi Beam	415	41.5	28'-6"	1985	93.5
A32762	I-29/35 to Front Street	Stringer/Multi Beam	101	27.8	Not Available	1973	84.4
A4113	M-9 S Ramp to I-35/70 W	Slab	140	24.7	**16'-2"**	1985	97.3
A4115	M-9 S to I-35/70 over I-70	Stringer/Multi Beam	344	24.7	16'-7"	1985	95.1
A4114	Ramp to N M-9 over I-35/70	Stringer/Multi Beam	257	24.7	**16'-2"**	1985	94.4
L-490R2	US 169 over I-35/70	Box Beam	127	93.9	**15'-3"**	1954	88.2
L-786	The Paseo over Ramp to N I-29/35	Frame	54	28.8	**15'-1"**	1953	88.7
L07872	The Paseo over N I-29/35	Stringer/Multi Beam	207	29.2	**15'-1"**	1953	**72.8**
A5658	I-70 E (Lewis & Clark Viaduct)	Stringer/Multi Beam	4,487	43.9	17'-11"	1998	**73.8**
A-507R1	I-70 W (Lewis & Clark Viaduct)	Stringer/Multi Beam	4,336	47.8	18'-0"	1960	**79.5**

* Table I-2 in DEIS page I-8.

NOTE: **Shaded numbers** indicate a deviation from the standard practice and may be less than desirable but do not necessarily mean that these structures are deficient. There are several factors that determine whether a structure is deficient. Not all of those factors are shown in this table.

SOURCE: Missouri Department of Transportation, 2003.